

r-solar
by farmkart

Concept to Commissioning



Power Your Business with r-solar

Shree Shyam Industries Singhana

About r-solar

r-solar, an initiative by Farmkart Online Services Pvt. Ltd., is committed to making clean and sustainable solar energy accessible across India. Leveraging Farmkart's expertise in agricultural innovation, r-solar expands into renewable energy to empower households, businesses, and farmers towards energy independence.

By partnering with Aatmanirbhar Solar Pvt. Ltd., we ensure high-quality, efficient, and durable solar systems, designed to withstand India's diverse climatic conditions. Together, we're building a future powered by the sun.



Our Commitment to Sustainable & Innovative Future



Our Mission

To lead the solar revolution through cutting-edge technology—offering AI-driven designs, smart monitoring, and ultra-fast deployment that make solar simple, scalable, and impactful for every business.



Our Vision

To create a sustainable future where every commercial and industrial solar solutions becomes a source of clean, reliable energy—powering businesses, preserving the planet, and contributing to India's carbon-neutral journey.



r-solar Highlights



High-Quality, Certified
Solar Products



3D Solar
Design Models



End to End Solar
Installation Support



Local Manufacturing,
Global Standards



Lifecycle Service
& Support



Custom
Financing Options

Why Choose Commercial?



Customized Solutions – We design and implement solar power systems based on your energy requirements.



High Efficiency Panels – Our premium-grade solar panels ensure maximum energy generation and long-term savings.



Expert Engineering & Installation – Our skilled professionals ensure seamless project execution with minimal disruption.



Cost Savings & ROI – Cut down your electricity bills and achieve high returns on your solar investment.



Tech-Proof Solar Solution – We use r-solar 3D design tools to plan your solar setup and provide a smart mobile app for real-time monitoring and performance analytics.



Visualize Before You Invest – 3D Solar Plant Design



Software-based 3D layout of your site



Accurate solar panel placement



Estimated energy generation reports



Space utilization insights for ROI planning



Powered by r-solar design suite



Shadow analysis



Our Impact



2.5+ Megawatts Installed
28 Megawatts in Progress



70% Reduction in Energy Costs

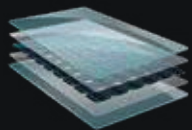


1200+ Projects Installed



95% Customer Satisfaction

Power from Both Sides: r-solar Bifacial Panels

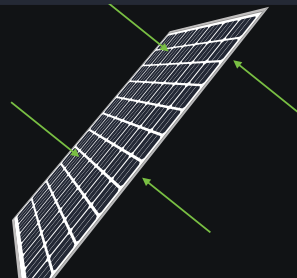


Dual Glass Construction



Durable 6005-T6 Anodized Aluminum Frame

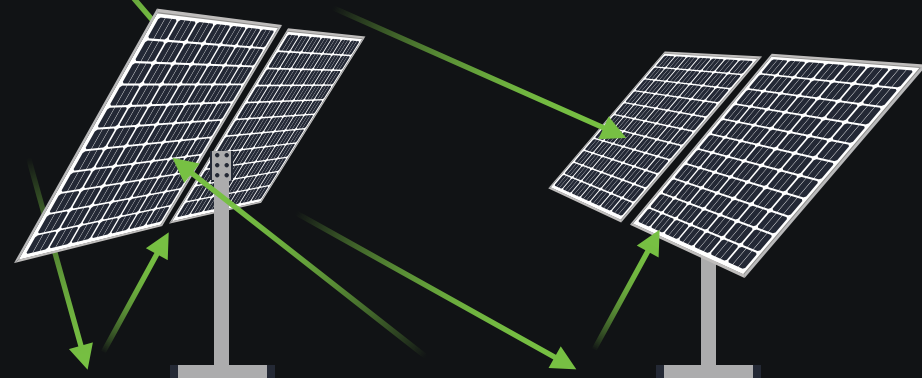
Power from Both Sides Bifacial Panels



**Consistent Power,
Even on Cloudy Days**



**25 Years
Panel Warranty**



**Certified
BIS
Modules**



**High Wind
Load Tolerance**

Better Fire Safety

Double glass design improves fire resistance for industrial safety compliance.

**Up to 20%
Higher Power Output**

**545W-
700W
Power Range**

Low Light Performance

Performs well during early morning, evening, and cloudy weather.

Multi Busbar Technology
Power increases by 2~3%

Reduced Microcracks Risk

Dual glass structure prevents cell cracking, enhancing durability.

Up to 23.5%

Module Efficiency

Lower Temperature Sensitivity

Better output even under high temperature compared to normal panels.

Next-Gen Technology

Monocrystalline PERC & TOPCON

Smart & Powerful: r-solar Three-Phase Inverter



Capacity

30kW–1000mW

Easy Installation



The Highest Quality Components



10-Year Warranty

Long-term reliability — with optional extension plans.

Low Startup Voltage

– longer energy production



Monitor system remotely using smartphone app.

Compatible with Bifacial Modules

Up to

97.8%

Efficiency



Certified as per IEC & BIS Standards

Complies with international and Indian regulatory norms.



Ip65 Rated

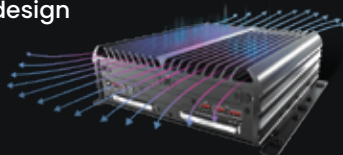
Suitable for indoor and outdoor installation

High Efficiency

Maximum efficiency of between 97.2% and 97.8%.

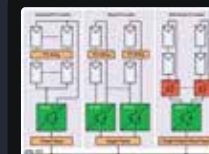
Natural Cooling

Fan-less design



Low Noise Operation (<30 dB)

Silent working — ideal for schools, offices, hospitals.



Multiple MPPT Channels

Maximizes power generation from each solar string individually.

High-Performance r-solar Mounting Structures

**Rust
Proof**



**Compatible with
Bifacial Panels**

Designed to maximize rear-side generation with bifacial panels.

**German-Based Designed
and Engineered Structure**

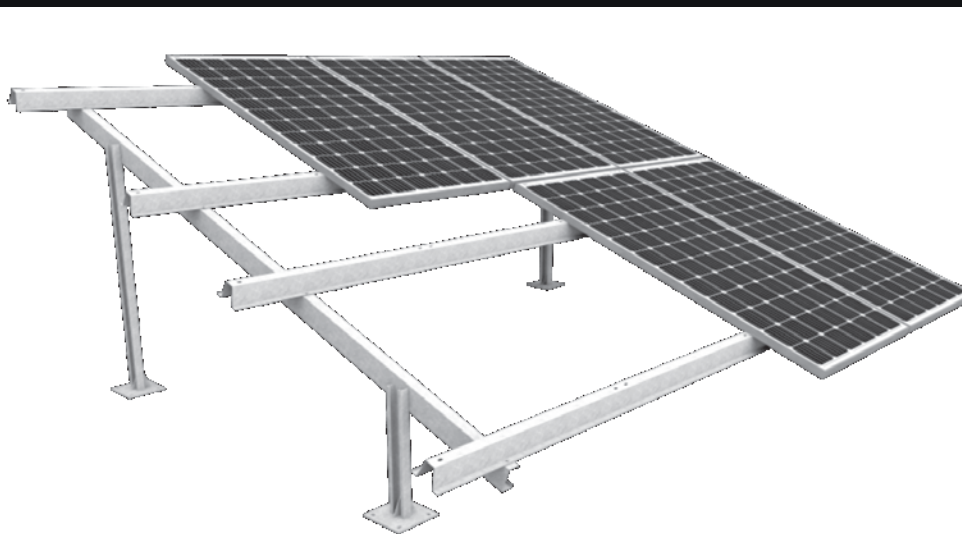
Supports wind speeds up to
150–200 km/h

**Hot Dipped
Galvanized Structure**



Custom Designs For:

- Tin sheds
- RCC terraces
- Ground installations
- Carport solar systems



Aerodynamic
Design for
Wind Resistance

**Pre-Assembled
Parts for
Fast Setup**

Reduces installation
time by up to 40%.

**Quick Install and
Low Maintenance**

**Maintenance-
Free Operation**

No need
for regular
maintenance
or painting

Easy Expandability

Structure can be easily extended
if project size increases.

**High Load-Bearing
Capacity**

Supports heavy panel loads,
withstands hail impact.



Each components
are made up of

**Aluminum
T6-6063.**

Zero Welding at Site



**Customized for
Terrain Type**

Suitable for slope ground,
uneven land, and flat rooftops.

**Long-Life
Performance**
Corrosion-Resistant

r-solar Components and BOS



LA (Lightning Arrester)



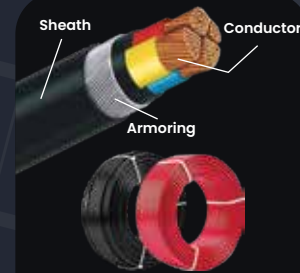
DCDB



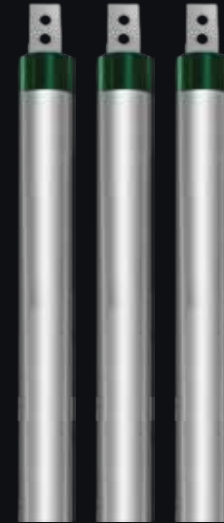
ACDB



Meter



Cable



GI Earthing Rods

सैटेलाइट मैपिंग, AI प्लानिंग



3D Design & Mapping

Agreement Signing

Site Visit

MPEB Load Increase*

Bill Name Transfer*

Bank Financing



लोड आपका, सुविधा हमारी

नाम आपका, जिम्मेदारी हमारी

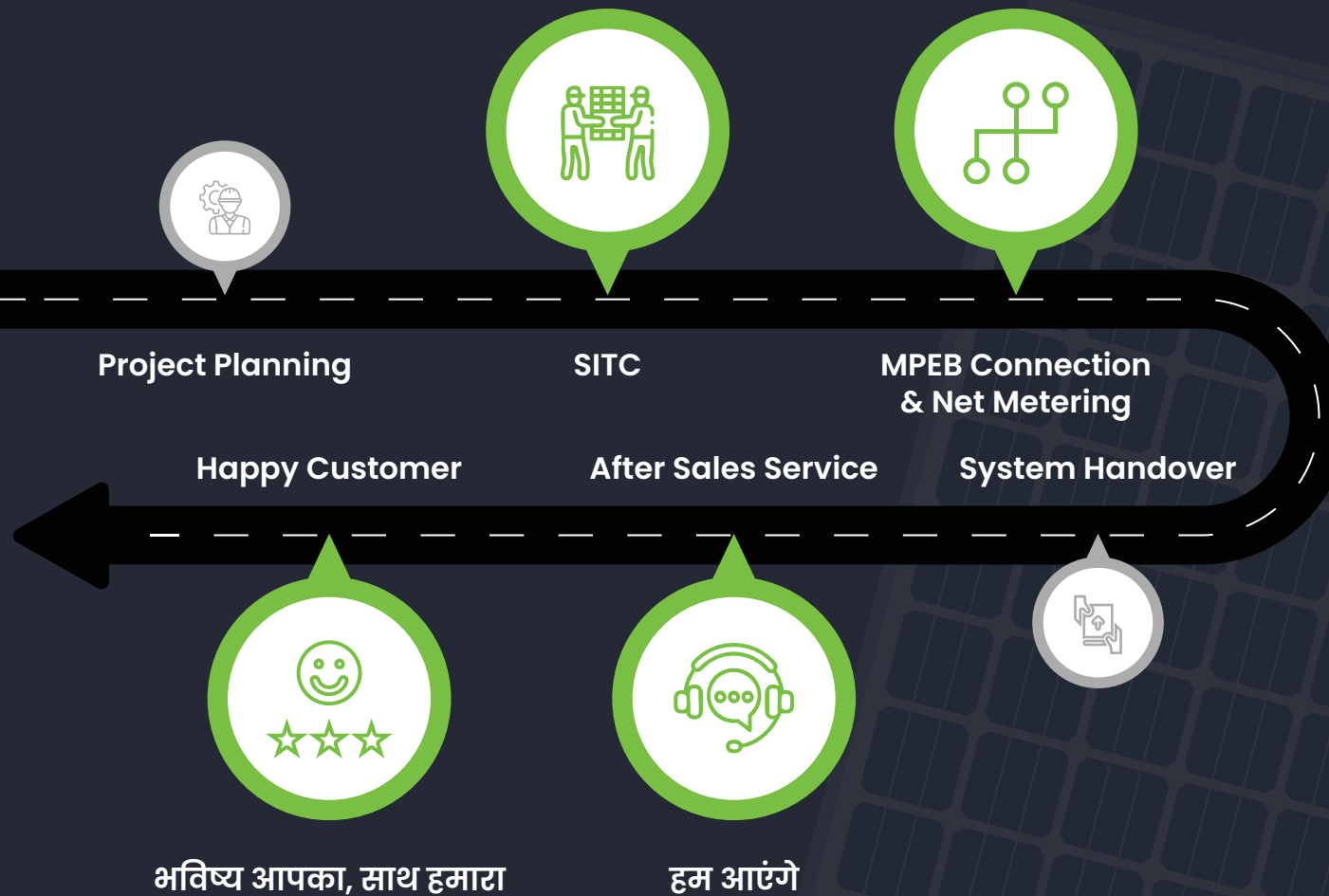
हर घर



में सोलर

Our Process

छत आपकी, भरोसा हमारा ऊर्जा की बचत, भविष्य की सुरक्षा



*If Required

Delivering Solar Energy Solution To...



Retail &
Shopping Centers



Offices &
Corporate Buildings



Hotels &
Hospitality Industry



Educational
Institutions



Manufacturing &
Industrial Facilities



Warehouses &
Cold Storage Units

Case Study – Paramount Academy, Barwani

Overview:

- Category: Educational Institution
- System Size: 60 kW rooftop solar
- Location: Barwani, MP

Components Used:

- 545W Bifacial Panels
- German-engineered mounting system
- 3D design via r-solar tool

Results:

- Avg. Monthly Generation: 9,000 units
- Annual CO₂ Offset: 85–90 metric tons
- Financial Savings: Massive drop in electricity bills



Customer Bill

(Reference Bill)

Your Contract Demand: 200 KVA

GMC (Guaranteed Minimum Charges) Calculation

Current Scenario:

- Contract Demand (CD): 200 kVA
- Monthly GMC Rate: ₹384 per kVA
- Monthly GMC Cost: $200 \times ₹384 = ₹76,800$
- Annual GMC Cost: $₹76,800 \times 12 = ₹9,21,600$

Total Annual Savings with r-solar (including GMC reduction): ₹2,06,767

 M.P. PASCHIM KSHETRA VIDYUT VITARAN CO. LTD.				
MPPKVCL, G.P.H. Compound, Polo Ground, Indore - 452003 GSTIN of Company:- htcclmppkvcl@gmail.com Website: http://www.mppwz.co.in/ HSN Code of Electricity:- 271600 PAN of Company: AADCM7397N				
Bill ID : H3641000745-202503-1				
Date Of Issue : 26-MAR-2025	Last Dates Of Payment	I. By Online	11-APR-2025	
Bill month : March-2025				
Khatwas 451001 Mob. No. *****4500 Email Id	Loc Code 3644700, Circle : Khargone Cons. Code H3641000745 Old Cons. Code NA PAN : S/C No : 760 Total SD Held : Rs. 515300.00 Connection Date : 19/10/2022 Supply Voltage : 11 KV Purpose : PRODUCING/PROCESSING FOOD ITEM UNIT			
Cont. Demand 200 KVA [TempCd 0] [Standby CD 0] * Tariff HV-3.1 A Industrial on 11KV & ANNUAL GMC : 1200 per KVA				
Feeder Name: Water Works Meter No. Q0542391 MF * AMR Reading Max Demand Recorded Transformer Loss Total Max Demand Adjustment Net Max Demand Billing Demand Energy Units (KWH) Reading On 23-MAR-2025 On 23-FEB-2025 DIFFERENCE With MF Transformer Loss Adjustment Total Units Net Units Supplied KWH EXPORT : Previous CF Units : Current CF Units : TOD1 : TOD2 : TOD3 : TOD4 : Demand in excess of CD. KVAH Units Reading On 23-MAR-2025 On 23-FEB-2025 DIFFERENCE With MF Transformer Loss Adjustment Total Units Net KVAH Units Supplied Avg Power Factor 0.99 Progressive KWH Consumption Up to Current Month		300.000000 0.81880 2145.64000 0.00000 246.00000 246.00000 3244.17000 3128.48500 34705.50000 0.00000 0.00000 34706.		

- Please check and verify your PAN number, Email ID/Mobile No. mentioned on Bill. In case of any statutory/legal obligation the consumer will be solely responsible for the same.
- Pay your HT Bill with your HDFC Virtual Account No. which is mentioned at top of the bill. IFSC Code is HDFC0001240, Account name is MPPKVCL CO. LTD INDORE ONLINE HT COLLECT.
- Pay your HT Bill with your ICICI Virtual Account No. which is mentioned at top of the bill. IFSC Code is ICIC0000106, Account name is MPPKVCL HT REVENUE COLLECTION a/c. Account No. is your ICICI Virtual A/c No.
- The amount of this HT bill payable at HT Billing Cell Indore by SBI Collect/RTGS/NEFT in Favor of Collection a/c MPPKVCL HT REVENUE COLLECTION, INDORE. Account No. 34846687179, IFSC code SBIN0010527, Bank Name- State Bank of India, Branch-MPSEB Campus Branch Indore, [PART PAYMENT IS NOT ALLOWED IN THIS A/C]
- After Making Payment, Please Inform the same on our email id htcclmppkvcl@gmail.com or on 0731-2426126(whatsapp)
- Any inquiry/information may be sought on email id htcclmppkvcl@gmail.com or 0731-2426125.
- For Billing Complaints, Nodal Officer Smt. Neetu Manghi, Director (HT Billing Cell) may be reached at 0731-2426125 email htblbcomplaintsmpwz@gmail.com

Key Facts from Their Bill

1. Monthly Consumption (Average):

Last 6 months $\approx$ 39,500 units/month (from our earlier calc)

Monthly Consumption Breakdown (with Multiplication Factor: 300)

The KWH readings are taken every 23rd of the month.

Month	Previous Reading (kWh)	Current Reading (kWh)	Unit Difference	Multiplication Factor (MF)	Units Consumed
Sep 2024		2454.29			
Oct 2024	2454.29	2598.09	143.8	300	43140
Nov 2024	2598.09	2730.79	132.7	300	39810
Dec 2024	2730.79	2838.29	107.5	300	32250
Jan 2025	2838.29	2978.24	139.95	300	41985
Feb 2025	2978.24	3128.49	150.25	300	45075
Mar 2025	3128.49	3244.17	115.68	300	34704

Suggested Solar Capacity

150 kW System

- Generates ~20,250–25,500 units/month
- Covers ~35%–45% of your monthly consumption
- Balances good savings + manageable investment
- Safer size for HT metering without major transformer upgrade

Rooftop Space Requirement

For proper solar panel installation, it's important to plan the rooftop space carefully. Each solar panel has a dimension of approximately 4 ft × 8 ft and a capacity of 550 watts.

Technical Space Requirement:

- 1 kW of solar panels typically occupies ~64 sq.ft.
- This includes only panel footprint, excluding walkways or maintenance space.

Recommended with Operational Space (cleaning, access, etc.):

- We recommend planning for **~100 sq.ft. per kW** to ensure safe and efficient operation.
- This includes space for panel tilt, sunlight exposure, cleaning access, and cable management.

Estimated Total Space Required

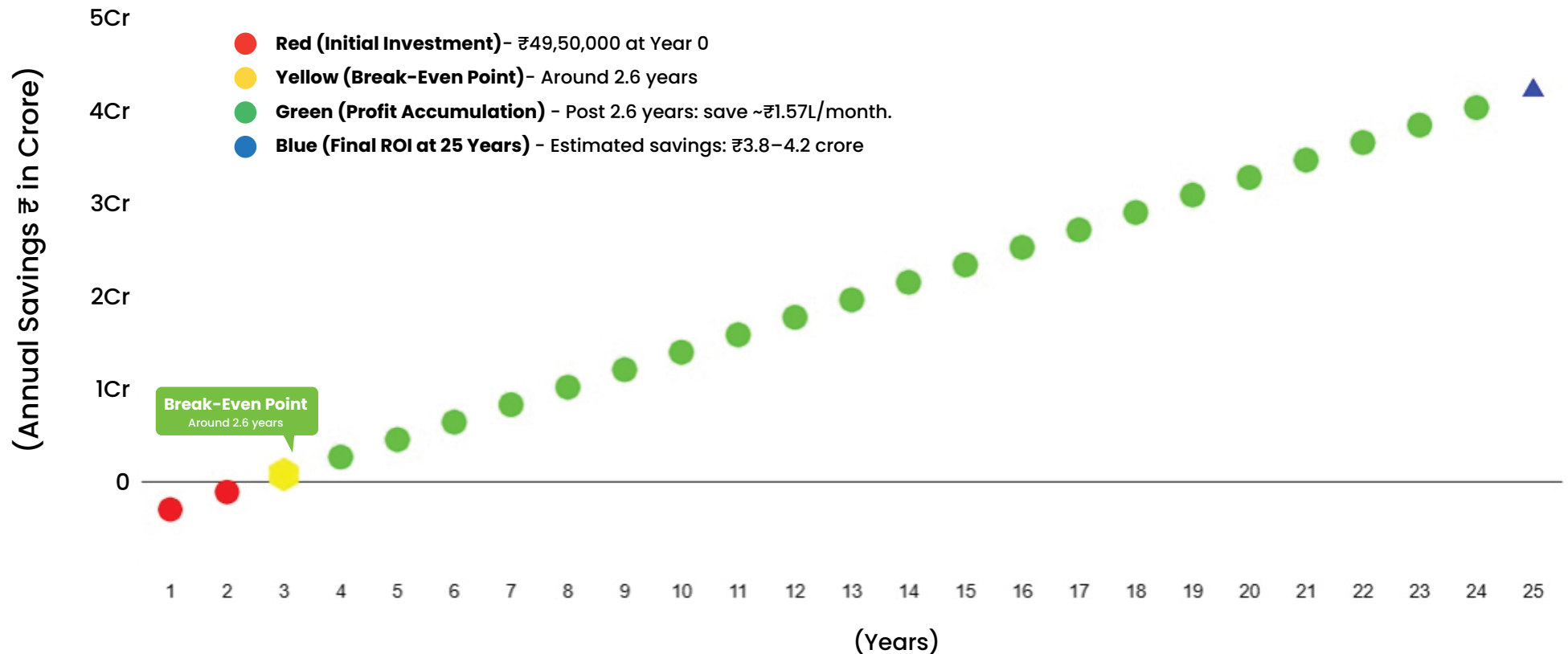
150 kW System: $150 \times 100 = \text{**}15,000 \text{ sq.ft.}$

150 kW System

- ROI: 2.6 years (with savings of ₹1.57L/month)

Return on Investment (ROI)

Shreeji Proteins (150 kW Solar Plan)



Invest ₹49.50 lakh today, start saving ₹1.57 lakh every month, break even in 2.6 years, and earn ₹3.8+ crore in 25 years — all from clean solar energy.

Our Professional Services

At r-solar, we go beyond installation — we offer a complete professional experience designed to maximize value and trust for every commercial client.



Premium & Personalised SS Name Plate



Monthly Monitoring & Performance Analysis



Customized Energy Calculation & ROI



Personalized Green Energy Certificate



*नियम एवं शर्तें लागू

r-solar gallery



Atul Patidar's Vision for Rural India: Recognized by the Hon'ble Prime Minister in Mann Ki Baat

"Through Farmkart, (Atul Patidar) has digitally connected 4,000 farmers in his area. These farmers are getting home delivery of many agricultural inputs like fertilizers, seeds, pesticides and agricultural equipment. In simple words, farmers are getting everything they need at their doorstep."



Scan to Watch:
PM Modi Recognizes Farmkart in Mann Ki Baat

r-solar
by farmkart



Contact us:

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Farmkart, Anjad Road, Barwani (MP)

451551

